

**WE CLAIM:**

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1. A method of detecting computer viruses within a computer file, said method comprising the steps of:

5 receiving a request to scan a computer file for computer viruses;  
initiating a virus scanning operation upon said computer file;  
calculating during said virus scanning operation a measurement value indicative of an amount of data processing performed during said virus scanning operation;  
comparing during said virus scanning said measurement value with a threshold value;  
10 and  
triggering a break in said virus operation is said measurement value exceeds said threshold value.

15 2. A method as claimed in claim 1, further comprising the step of, upon occurrence of said break, determining using said measurement value whether or not said virus scanning operation should be terminated prior to completion.

20 3. A method as claimed in claim 1, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation.

4. A method as claimed in claim 1, wherein said amount of data processing performed includes data processing involved in any decompression of said computer file required for said virus scanning operation.

25 5. A method as claimed in claim 1, wherein said amount of data processing performed includes data processing involved in any unpacking of said computer file required for said virus scanning operation.

30 6. A method as claimed in claim 2, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation and step of determining is responsive to both said processed data size value and a computer file size value for said computer file when determining whether or not said virus scanning operation should be terminated prior to completion.

7. A method as claimed in claim 6, wherein said step of determining calculates a measurement ratio of said processed data size value to said computer file size value and compares this with a termination size threshold ratio such that said virus scanning is terminated if said measurement ratio exceeds said termination size threshold ratio.

8. A method as claimed in claim 1, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test and said measurement value is a sum of complexity values for tests applied during said virus scanning operation.

9. A method as claimed in claim 8, wherein said plurality of test applied are selected in dependence upon said computer file.

10. A method as claimed in claim 2, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test, said measurement value being a sum of complexity values for tests applied during said virus scanning operation and said step of determining terminating said virus scanning operation prior to completion if said sum of complexity values exceeds a termination complexity threshold value.

11. Apparatus for detecting computer viruses within a computer file, said apparatus comprising:

a receiver operable to receive a request to scan a computer file for computer viruses;

initiating logic operable to initiate a virus scanning operation upon said computer file;

calculating logic operable to calculate during said virus scanning operation a measurement value indicative of an amount of data processing performed during said virus scanning operation;

comparing logic operable during said virus scanning to compare said measurement value with a threshold value; and

triggering logic operable to trigger a break in said virus operation is said measurement value exceeds said threshold value.

12. Apparatus as claimed in claim 11, wherein, upon occurrence of said break, determining logic operates using said measurement value to determine whether or not said virus scanning operation should be terminated prior to completion.

13. Apparatus as claimed in claim 12, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation.

14. Apparatus as claimed in claim 11, wherein said amount of data processing performed includes data processing involved in any decompression of said computer file required for said virus scanning operation.

15. Apparatus as claimed in claim 11, wherein said amount of data processing performed includes data processing involved in any unpacking of said computer file required for said virus scanning operation.

16. Apparatus as claimed in claim 12, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation and said determining logic is responsive to both said processed data size value and a computer file size value for said computer file when determining whether or not said virus scanning operation should be terminated prior to completion.

17. Apparatus as claimed in claim 16, wherein said determining logic is operable to calculate a measurement ratio of said processed data size value to said computer file size value and compare this with a termination size threshold ratio such that said virus scanning is terminated if said measurement ratio exceeds said termination size threshold ratio.

18. Apparatus as claimed in claim 11, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test and said measurement value is a sum of complexity values for tests applied during said virus scanning operation.

19. Apparatus as claimed in claim 18, wherein said plurality of test applied are selected in dependence upon said computer file.

20. Apparatus as claimed in claim 12, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test, said measurement value being a sum of complexity values for tests applied during said virus scanning operation and said step of  
5 determining terminating said virus scanning operation prior to completion if said sum of complexity values exceeds a termination complexity threshold value.

21. A computer program product carrying a computer program for controlling a computer to detect computer viruses within a computer file, said computer program comprising:

10 receiver code operable to receive a request to scan a computer file for computer viruses;

initiating code operable to initiate a virus scanning operation upon said computer file;

calculating code operable to calculate during said virus scanning operation a measurement value indicative of an amount of data processing performed during said virus  
15 scanning operation;

comparing code operable during said virus scanning to compare said measurement value with a threshold value; and

triggering code operable to trigger a break in said virus operation is said measurement value exceeds said threshold value.

22. A computer program product as claimed in claim 21, wherein, upon occurrence of said break, determining code operates using said measurement value to determine whether or not  
20 said virus scanning operation should be terminated prior to completion.

23. A computer program product as claimed in claim 22, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation.

24. A computer program product as claimed in claim 21, wherein said amount of data processing performed includes data processing involved in any decompression of said  
30 computer file required for said virus scanning operation.

25. A computer program product as claimed in claim 21, wherein said amount of data processing performed includes data processing involved in any unpacking of said computer file required for said virus scanning operation.

26. A computer program product as claimed in claim 22, wherein said measurement value yields a processed data size value for data processed during said virus scanning operation and said determining code is responsive to both said processed data size value and a computer file size value for said computer file when determining whether or not said virus scanning operation should be terminated prior to completion.

27. A computer program product as claimed in claim 26, wherein said determining code is operable to calculate a measurement ratio of said processed data size value to said computer file size value and compare this with a termination size threshold ratio such that said virus scanning is terminated if said measurement ratio exceeds said termination size threshold ratio.

28. A computer program product as claimed in claim 21, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test and said measurement value is a sum of complexity values for tests applied during said virus scanning operation.

29. A computer program product as claimed in claim 28, wherein said plurality of test applied are selected in dependence upon said computer file.

30. A computer program product as claimed in claim 22, wherein said virus scanning operation applies a plurality of tests to said computer file, each test having an complexity value indicative of an amount of data processing associated with that test, said measurement value being a sum of complexity values for tests applied during said virus scanning operation and said step of determining terminating said virus scanning operation prior to completion if said sum of complexity values exceeds a termination complexity threshold value.